

TWO NEW SPECIES OF *ANCYROCEPHALUS*
(MONOGENEA: DACTYLOGYRIDAE) FROM MARINE
FISHES OF THE NORTHERN GULF OF MEXICO

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Abstract.—*Ancyrocephalus spirae* sp. n. is described from the longnosed killifish, *Fundulus similis* (Baird and Girard) and the Gulf killifish, *Fundulus grandis* Baird and Girard; *Ancyrocephalus trullae* sp. n. is described from the halfbeak, *Hyporhamphus unifasciatus* (Ranzani), from Dauphin Island, Alabama. *Ancyrocephalus spirae* is distinguished by the unique shape of its cirrus, and *A. trullae* by the groove on its bars.

Three species of *Ancyrocephalus* (*A. cornutus* Williams and Rogers, 1972; *A. lactophrys* (MacCallum, 1915); and *A. parvus* Linton, 1940) have been noted from marine fishes of the northern Gulf of Mexico (Hargis, 1955, and Williams and Rogers, 1972). In the present paper two new species of *Ancyrocephalus* are described from this region.

Materials and Methods

Fishes were collected by seine, dip net, or cast net and held alive until examined, within 2 hours of capture. The parasites were placed in a solution of hot 5% formalin. All measurements (in μm) were made with the methods of Rogers and Wellborn (1965) and were obtained from formalin-hardened specimens mounted in glycerine jelly. Averages are to the nearest μm and ranges are in parentheses. The illustrations were drawn with the aid of a camera lucida and a Bausch and Lomb Trisymplex microprojector.

Comparative material (all USNM Helm. Coll.) consisted of the holotype (8143) and a hypotype (72239) of *Ancyrocephalus parvus* Hargis, 1940; cotypes (35695) of *A. tylosuri* (MacCallum, 1917); and the holotype (72237) and paratypes (72238) of *A. cornutus* Williams and Rogers, 1972.

Ancyrocephalus spirae, new species

Figs. 1-7

Host and locality.—Longnose killifish, *Fundulus similis* (Baird and Girard) Dauphin Island Alabama Marine Resources Laboratory, Dauphin Island, Alabama (31 May 1970).

Additional host and localities.—*Fundulus grandis* Baird and Girard, Gulf killifish, seaward beach, Dauphin Island, Alabama (10 June 1970); State

Park, Mobile Causeway, Alabama (30 January 1971); Pensacola Bay, Florida (9 August 1969). Longnose killifish, Santa Rosa Island, Florida (3 July 1969).

Location on hosts.—Gill filaments

Specimens studied.—100 (10 measured)

Type-specimens.—Holotype and 2 paratypes USNM Helm. Coll. Nos. 76150 and 76151. Paratypes in author's collection.

Description.—Length 359 (315–381), greatest width 100 (69–126). Cuticle thin, smooth. Cephalic lobes well developed; eyespots subequal, component granules of anterior pair frequently dispersed, posterior pair farther apart. Pharynx spherical, transverse diameter 30 (27–35). Haptor distinct, suboval. Length 44 (31–51), width 68 (63–78). Anchors solid, dissimilar. Dorsal anchor 24 (22–26) from tip of base to most distant point of curvature, base 16 (15–18) long, superficial root 11–12 long, deep root 3 (2–4) long, point 3–4 long. Ventral anchor 24 (23–26) from tip of base to most instant point of curvature, base 11 (10–12) long, superficial root 8–9, long deep root 5–6 long, point 6 (5–7) long. Two bars subequal, variable. Dorsal bar 26 (25–27) long, 3–4 wide, with prominent subterminal indentations. Ventral bar 25 (23–27) long, 3–4 wide, slightly curved anteriorly, with distinct subterminal indentations. Marginal hooks 14, similar in shape, each with inflated base, elongate slender shaft and sickle-shaped point with FH loop; typically arranged. Length 13 (11–14), FH loop length 4–5. Cirrus 17 (16–18) long, with expanded base, tapering to slender shaft in acute turn, and forming long sickle-shaped anterior portion. Accessory piece 22 (20–25) long y-shaped, both rami with sharp points. Vagina not observed. Vitellaria dense, extending from pharynx to haptor.

Remarks.—*Ancyrocephalus spirae* differs from other members of genus in cirrus shape. The dorsal anchor of *A. parvus* Linton, 1940 (redescribed, Williams and Rogers, 1972) is very similar to the dorsal anchor of *A. spirae* but the remaining anchor and bars differ.

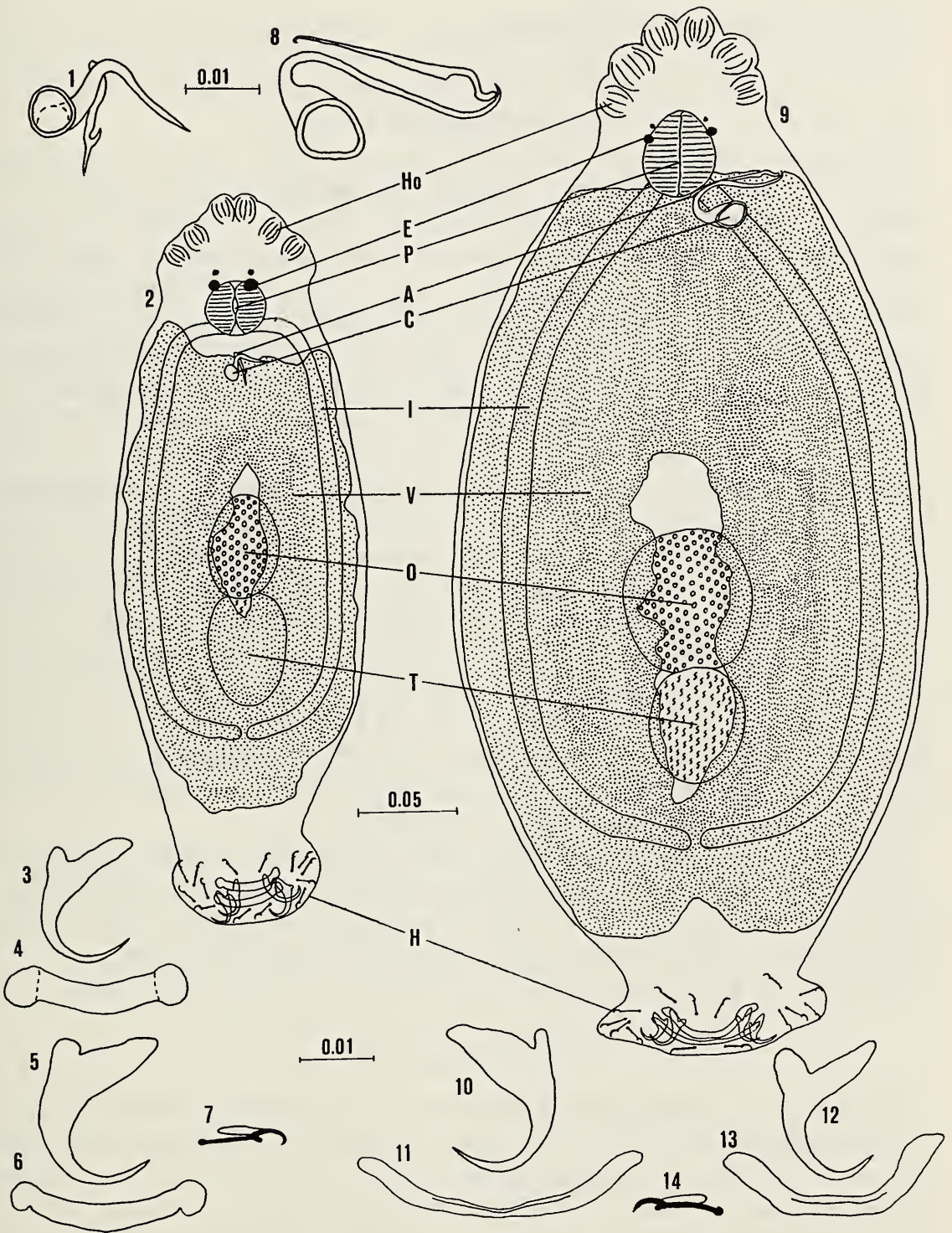
Gyrodactylus foxi Rawson, 1973 and *Gyrodactylus* sp. (Monogenea: *Gyrodactylidae*), *Trichodina* sp. (Protozoa: Ciliata), and *Oodinium cyprinodontum* Lawler, 1967 (Protozoa: Dinoflagellida) were associated with *A. spirae* on the gill filaments of *F. similis*. *A. spirae* was more abundant than either species of *Gyrodactylus*. Both protozoans were very light (Williams, 1972) in abundance.

The name is Latin (*spira*—a coil, twist) and refers to the shape of the cirrus.

Ancyrocephalus trullae, new species

Figs. 8–14

Host and locality.—Halfbeak, *Hyporhamphus unifasciatus* (Ranzani). Dauphin Island State Peir, Dauphin Island, Alabama (18 November 1971).



Figs. 1-7. *Ancyrocephalus spirae*: 1, Cirrus and accessory piece; 2, Whole worm; 3, Dorsal anchor; 4, Dorsal bar; 5, Ventral anchor; 6, Ventral bar; 7, Hook. Figs. 8-14. *Ancyrocephalus trullae*: 8, Cirrus and accessory piece; 9, Whole worm; 10, Ventral anchor; 11, Ventral bar; 12, Dorsal anchor; 13, Dorsal bar; 14, Hook. A—Accessory piece. C—Cirrus. E—Eyespot. H—Head organs. I—Caecum. O—Ovary. P—Pharynx. T—Testis. V—Vitellaria.

Location on host.—Gill filaments.

Specimens studied.—6 (all measured).

Type specimens.—Holotype and 2 paratypes USNM Helm. Coll. Nos. 76152 and 76153. Three paratypes in author's collection.

Description.—Length 414 (374–489), greatest width 155 (102–156) about midbody. Cuticle thin, smooth. Cephalic lobes poorly developed; eyespots subequal, component granules of anterior pair occasionally dispersed, posterior pair further apart. Pharynx spherical, transverse diameter 32 (30–36). Haptor distinct, suboval, length 38 (33–40), width 95 (81–119). Anchors solid, dissimilar. Dorsal anchor 24 (22–26) from tip of base to most distant point of curvature, base 16 (15–17), superficial root 9–10 long, deep root 5 (4–7) long, point 7–8 long. Ventral anchor 21 (20–23) from tip of base to most distant point of curvature, base 16 (15–17), superficial root 11–12 long, deep root 5–6 long, point 5–6 long. Two bars dissimilar, both with transverse groove close to anterior margins. Dorsal bar 42 (39–45) long, 1–2 wide, with prominent subterminal indentations. Ventral bar 31 (29–32) long, 2–3 wide, slightly curved anteriorly, with distinct subterminal indentations. Marginal hooks 14, similar in shape, each with inflated base, elongate slender shaft, and sickleshaped point with FH loop; typically arranged. Length 15 (13–16), FH loop length 7 (6–8). Cirrus 45 (40–49) long, with expanded horn-shaped base, rapidly tapering into a long slender shaft with abrupt curve to sharp point, not unlike the shape of an old English clay pipe. Accessory piece, 29 (27–31) a long slender blade, gradually expanding toward forked posterior; notch just anterior to y-shaped fork. Vagina not observed. Vitellaria dense, extending from pharynx to haptor.

Remarks.—*Ancyrocephalus trullae* differs from other members of the genus in having bars with a lateral median groove close to their anterior margins. Only 6 specimens of *A. trullae* occurred on the gills of the 2 hosts examined. No other parasites were observed on the gill filaments.

The name is Latin (*trulla*-ladle) and refers to the shape of the cirrus.

Acknowledgments

Thanks are extended to the Southeastern Cooperative Fish Disease Project, Department of Fisheries and Allied Aquacultures, Auburn, University, Auburn, Alabama for supporting this research; to Madison R. Powell, Wayne E. Swingle, Hugh A. Swingle, Walter M. Tatum, and other personnel of the Alabama Marine Resources Laboratory, Alabama Department of Conservation and Natural Resources, Dauphin Island, Alabama for help in collecting and loan of equipment and facilities.

Special thanks are extended to Dr. Wilmer A. Rogers, Southeastern Cooperative Fish Disease Project, and Lucy B. Williams, Department of Ma-

rine Sciences, for reviewing the manuscript, and to Dr. Joseph R. Sullivan for construction of Latin names.

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